KE-5T, KE-5TB,
KE-8T, KE-9TB, KE-17TB

PLASTIC-PALM
10BASE-T ETHERNET HUB

User’ s Guide

FCC Warning

This equipment has been tested and found to comply with the regulations for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user' s guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

注意
この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準に基づく第一種情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Table of Contents

P/N: 6012-0161110 Rev.01

Introduction

Thank you for choosing the PLASTIC-PALM 10BASE-T Ethernet Hub. The hub was designed and manufactured to give you years of trouble-free and reliable service.

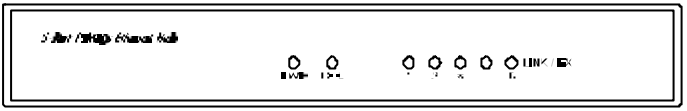
The hub is designed for plug-and-play installation and easy management. The hub provides an Uplink connection for your network expansion via a RJ-45 connector, making it easy to link two or more hubs together.

The hub features LINK/RX LEDs to show the connection and receive status of each twisted pair port. PWR and COL indicators show the status of the hub as whole.

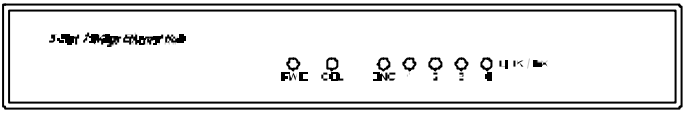
Product Features

- ✓ Compliance to IEEE 802.3 10BASE-T/2 standard.
- ✓ Automatic paritioning function of each port to isolate network failure.
- ✓ Ethernet connections support Category 3 or better twisted-pair cable.
- ✓ LED indicators for each twisted pair port for link and receive reporting diangnosis.
- ✓ Uplink jack for easy linking of two hubs to further expand the network.
- ✓ Compact design in palm size.
- ✓ The hub' s housing made by Plastic materil.

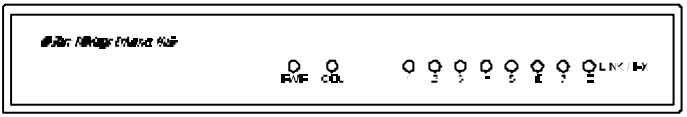
The Front Panel of PLASTIC-PALM HUBs



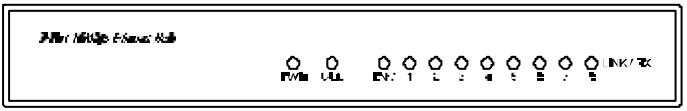
5-port Ethernet Hub



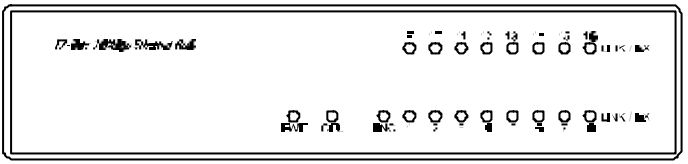
5-port Ethernet Hub with BNC port



8-port Ethernet Hub

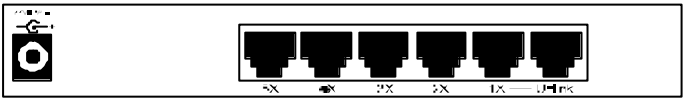


9-port Ethernet Hub with BNC port

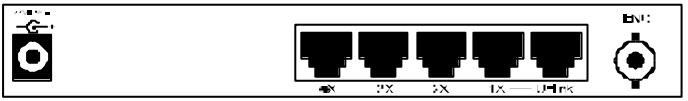


17-port Ethernet Hub with BNC port

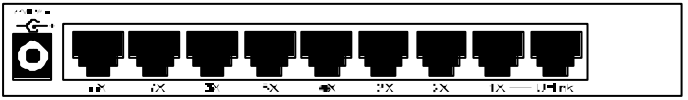
The Rear Panel of PLASTIC-PALM HUBs



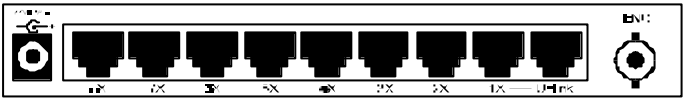
5-port Ethernet Hub



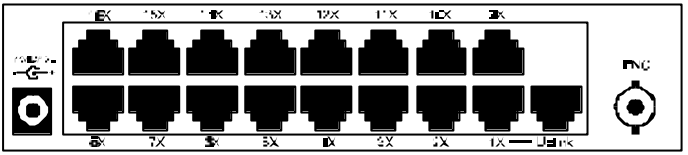
5-port Ethernet Hub with BNC port



8-port Ethernet Hub



9-port Ethernet Hub with BNC port



17-port Ethernet Hub with BNC port

LED Indicators

Power (PWR):	This indicator lights green when the hub is receiving power, otherwise, it is off.
Collision (COL):	This indicator indicates data collisions on the respective Ethernet segments of the hub. Whenever a collision is detected, the respective COL indicator will briefly blink amber.
Link/Receive: (LINK/RX)	This indicator green when the port is connected to a Ethernet station , If the

	station to which the hub is connected is powered off, or if there is a problem with the link, the LED will remain off. And the indicator blinking green when the data will be received to all other connected ports.
BNC:	This indicator blinking green when the data is transmitted.

Rear Panel Indicators

Twisted-pair Jacks

Use these jacks connect stations to the hub. These are MDI-X (Medium Dependent Interface, Cross-Wired) jacks, which means you can use ordinary stright-through twisted-pair cables to connect user mechines and servers to the hub through them. If you need to connect another device with an MDI-X jack, such as another hub or an Ethernet switch, you should use a crossver cable, or make the connection using the Uplink jack.

Uplink Jack

The Uplink jack is an MDI-II jack, which means you can connect the hub (or a hub stack) to a device with an MDI-X port using an ordinary straight-through cable, making a crossover cable unnecessary.

Port1 and the Uplink port is really the same port, except thar their pinouts are different. **Do not use both Port-1 (1X) and the Uplink port at the same time.**

Power Jack

For the External power adapter.

Installation

Installing the Hub

The site where you install the hub may greatly affect its performance. When installing, consider the following pointers:

Install the hub in a fairly cool and dry place, for the acceptable temperature and humidity operating ranges.
Install the hub in a site free from strong electromagnetic field generators (such as motors), vibration, dust, and direct exposure to sunlight.
Leave at least 10 cm of space at the front and rear of the hub for ventilation.
Install the hub on a sturdy, level surface that can support its weight. When installing the hub on a level surface, attach the rubber feet to the bottom of each device. The rubber feet cushion the hub and protect the hub case from scratches.

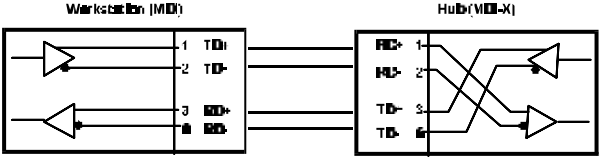
Connecting the Power Adapter

Power is supplied to the Ethernet Hub through an AC power adapter.

Cables and Connectors

Cable characteristics: Category 3 or better unshielded twisted-pair or EIA/TIA-568 compliant, 100-ohm shielded twisted-pair data cable with 0.4 to 0.6 mm (22 to 26 AWG) wires in two or four twisted pairs (only two pairs--that is, four wires--are used for 10BASE-T).
Maximum segment length: 100 meters
Connectors: RJ-45

Straight Twisted-Pair Cable Pinouts		
Contact	**MDI-X Signal**	**MDI-II Signal**
1	RD+ (receive)	TD+ (transmit)
2	RD- (receive)	TD- (transmit)
3	TD+ (transmit)	RD+ (receive)
4	Not used	Not used
5	Not used	Not used
6	TD- (transmit)	RD- (receive)
7	Not used	Not used
8	Not used	Not used

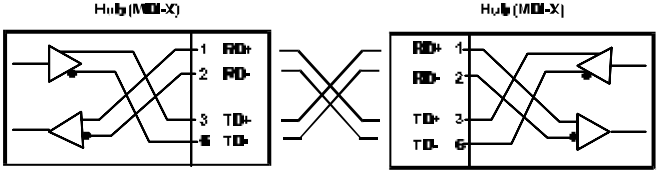


Crossover Cables

When making an uplink connection between one hub and another (or between a hub and a switch or bridge) using **X**-type jacks at both ends, you must use a crossover cable. In a crossover cable, two pairs of wires are switched at one end. Carry out the following steps to create a crossover twisted-pair cable:

1. Leave one end of the cable as-is, with the wiring on the RJ-45 connector unchanged. The wiring needs to be modified at one end only.

2. At the other end of the cable, connect wires 1 and 2 to contacts 3 and 6, respectively. Likewise, connect wires 3 and 6 to contacts 1 and 2. Refer to the following diagram:



Specifications

General

Standards: IEEE 802.3 10BASE-T Ethernet repeater, and ANSI X3T9.5 twisted-pair transceiver

Topology: Star

Protocol: CSMA/CD

Network Data Transfer Rate: Ethernet: 10Mbps

Number of Ports : 4 x STP + 1 x BNC, 5 x STP, 8 x STP, 8 x STP + 1 x BNC, 16 x STP + 1 x BNC

Network Media : Category 3 or better UTP cable, maximum length 100 meters.

Environmental and Physical

Power Adapter: 5, 8, 9-port: Output 7.5VDC/1A
17-port: Output 7.5VDC/1.5A

Dimensions: 5,8,9-port: 176mm × 81.5mm × 31.3mm

17-port: 176mm x 81.5mm x 45mm

Operating Temperature: 0 to 40°C

Storage Temperature: –20 to 70°C

Humidity: 5% to 90% (non-condensing)

Emissions: FCC Class A, CE Mark Class A, VCCI